GENERAL SERVICES ADMINISTRATION - FEDERAL SUPPLY SERVICE

SPECIFICATION COMMENT SHEET

BUDGET BUREAU NO. 29-R0175

INSTRUCTIONS

This form provides a way for users of this specification to inform the originator of problems encountered in its use. It is not to be used to request changes to accommodate proprietary features. All comments will be considered and appreciated, but please do not expect a reply. To comment: detach, complete, and mail to: General Services Administration, FSS (FMSO), Wash., DC 20406.
NOTE: Comments on this form do not constitute or imply authorization to waive any part of the document or serve to amend contractual requirements.

1. SPECIFICATION

FF-P-00810A(GSA-FSS) Pulverizing Machine, Paper, Classified Waste (Security)

2. CONTRACT NO. *(If any)*	3. QUANTITY ON CONTRACT *(Optional)*	4. DOLLAR VALUE *(Optional)*
NA	NA	NA

5. GENERAL NATURE OF PROBLEM *(e.g., inspection difficulties, manufacturers unable to meet tolerances, containers collapse under normal warehousing conditions, etc.)*

SEE ATTACHED SHEET

6. SPECIFIC REQUIREMENTS AFFECTED *(Include paragraph number and lines of wording)*

SEE ATTACHED SHEET

7. SPECIFIC PROBLEMS *(e.g. tests in 4.2.2 will not assure that the battery will last required time; temperature ranges in table 2 do not conform to commercially available items.)*

SEE ATTACHED SHEET

8. RECOMMENDATIONS

Change this specification per recommendations on attached sheet.

9. NAME OF MANUFACTURER, ASSOCIATION, GOVT., AGENCY, ETC.	10. ADDRESS *(Number, Street, City, State and Zip Code)*
R&D Subcommittee, Secty Comm Director Central Intelligence	c/o USAMC-IMA Bldg 4554 Ft Meade, MD 20755-5315

11. NAME AND TITLE OF SUBMITTER	12. DATE
PAUL W. Von STEIN, Chairman, Document Destruction Working Group, R&D SubCom - SEC COM - NFIB	23 May 85

FORM GSA FEB 69 2200

DRY TYPES

Rec'd: 13 SEP 1976

FF-P-00810A(GSA-FSS)
AMENDMENT-3
June 15, 1972
SUPERSEDING
AMENDMENT-2
March 22, 1972

AMENDMENT

TO

INTERIM FEDERAL SPECIFICATION

PULVERIZING MACHINE, PAPER
CLASSIFIED WASTE
(SECURITY)

This amendment was developed by General Services Administration Federal Supply Service, Standardization Division, Washington, DC 20406, based upon currently available technical information. The General Services Administration has authorized this amendment as part of Interim Federal Specification FF-P-00810A, dated March 1, 1971.

PAGE 1

Paragraph 1.1 - Delete text in its entirety and substitute the following:

"This specification covers paper pulverizing machines which are designed to conform to the standards for security equipment as set forth in the 'National Security Council Directive Governing The Classification, Downgrading, Declassification And Safeguarding Of National Security Information.' The pulverizing machines are intended for use as specified by the user activity."

PAGE 2

Paragraph 2.1 Military Specifications: - Delete "MIL-I-26600 - Interference Control Requirements."

Paragraph 2.1 Military Standards: - Add "MIL-STD-461 - Electromagnetic Intereference Characteristics, Requirements for Equipment."

PAGE 3

Paragraph 3.2.1: After last sentence add "The machine shall withstand the tests in 4.5."

Paragraph 3.4.5: Delete text in its entirety and substitute:

3.4.5 Dust level. The machine shall be of a design that keeps the dust level in the operator's area below 50 million particles per cubic-foot (see 4.5.1.1). If needed to meet this requirement, a dust collector, filter, or separator shall be furnished as a component part of the pulverizing machine. If collectors, filters, or separators are needed they shall be of a light weight metal or other suitable material and all points, including inlet and discharge piping shall be dust tight.

PAGE 4

Paragraph 3.8 - Delete text in its entirety and substitute the following:

"Electromagnetic interference suppression. The machine shall comply with the requirements of MIL-STD-461 for class IIB equipment."

PAGE 5

Paragraph 4.2: Delete text in its entirety and substitute:

4.2 Preproduction tests and inspections. The preproduction sample in each class and size the supplier intends to furnish shall be subjected to the test and inspections in 4.5. Failure to withstand any of these requirements shall provide cause for rejection.

FSC 3615

prior to the closing operations. Sampling shall be in accordance with MIL-STD-105. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 4.0 defects per hundred units.

TABLE II. Classification of preparation for delivery defects

Examine	Defects
Markings (exterior and interior)	Omitted; incorrect; illegible; improper size, location, sequence, or method of application.
Materials	Any component missing, or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps, loose strapping, inadequate stapling, or distortion of container.

4.5 Test methods and inspections.

4.5.1 Service test. The completely assembled machine shall be connected to an appropriate power source and subjected to three hours of continuous operation. During this period, typical paper filing material shall be fed into the machine. At the start of the second hour, the overall performance of the machine shall be measured. During the final two hours of operations there shall be no dust leakage, no excessive clogging of the screen, no excessive vibration, noise, or servicing. The amount of paper pulverized shall be not less than the rated capacity of the machine (see 1.2.2). The processed paper (pulverized residue) shall be measured with an appropriate test screen or other particle measuring instrument for compliance with requirements for class I or class II pulverizing machines (see 3.2).

4.5.2 Radio interference test. The machine shall be tested in accordance with requirements for class IV machinery in MIL-I-26600.

4.5.3 Visual inspection. The machine shall be visually examined to determine its compliance with the workmanship requirements of this specification.

4.6 Results of tests and inspections. Any machine failing to meet the preproduction or acceptance requirements of this specification will be rejected. Rejection shall not preclude the manufacturer from correcting the condition which forms the basis for rejection, and from reworking a rejected part to remedy such defects for resubmission to inspection and test. All units and parts so reworked shall be indicated to the Government inspector.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A, B, or C as specified (see 6.1).

5.1.1 Level A.

5.1.1.1 Disassembly. When considered necessary, disassembly of the machine shall be the minimum to safeguard parts that increase cubage.

5.1.1.2 Cleaning and drying. The machine shall be cleaned by process C-1 and dried by procedure D-1 in accordance with MIL-P-116.

5.1.1.3 Preservative application. Interior surfaces of the machine subject to corrosion shall be coated with type P-10 preservative. All unpainted or unplated exterior surfaces of the machine shall be coated with type P-1 preservative of MIL-P-116.

5.1.1.4 Unit packaging. All openings of the machine shall be covered or wrapped with material conforming to MIL-B-121, type II, grade A, class 2 and sealed with tape conforming to PPP-T-76.

5.1.1.5 Electric motor. The electric motor shall be preserved in accordance with MIL-P-16298, when applicable.

5.1.1.6 Gasoline engines. The gasoline engines shall be preserved in accordance with MIL-P-10062, when applicable.

5.1.1.7 Technical publications. The technical publications shall be preserved in accordance with Method IC-1 of MIL-P-116.

5.1.2 Level B. The machine shall be preserved and packaged as specified in 5.1.1, except that no preservative will be required, unless recommended by the manufacturer.

5.1.3 Level C. The machines shall be preserved and packaged in accordance with the suppliers commercial practice providing this insures protection for the machine during shipment and provides safe delivery at its destination.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.1).

5.2.1 Level A. Each complete machine shall be packed in a close-fitting box conforming to PPP-B-601, overseas type, PPP-B-621, class 2 or PPP-B-640, class 2, grade A. Blocking and bracing shall be utilized as required to prevent movement of the contents during shipment and storage. The boxes shall be closed and strapped in accordance with the applicable specification or appendix thereto. When the gross weight exceeds 250 pounds, skids shall be provided as specified in PPP-B-621. When the gross weight exceeds 500 pounds the machines shall be packed in a crate conforming to PPP-C-650. A shroud in accordance with the appendix to the crate specification shall be provided.

5.2.2 Level B. Each complete machine shall be packed in a close-fitting box conforming to PPP-B-601, domestic type, PPP-B-621, class 1 or PPP-B-640, class 1, grade B. Blocking and bracing shall be utilized as required to prevent movement of the contents during shipment and storage. The boxes shall be closed and strapped in accordance with the applicable specification or appendix thereto. When the gross weight exceeds 200 pounds, skids shall be provided as specified in PPP-B-621. When the gross weight exceeds 500 pounds the machines shall be packed in a crate conforming to PPP-C-650. A shroud in accordance with the appendix to the crate specification shall be provided.

5.2.3 Level C. The machines shall be packed to insure carrier acceptance and safe delivery at destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking.

5.3.1 Civil agencies. In addition to markings required by the contractor or order, the interior packages and shipping containers shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military activities. In addition to markings required by the contract or order, the interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Ordering data. Purchasers should exercise desired options offered herein, and procurement documents should specify the following:

(a) Title, symbol, and date of this specification.
(b) Class, type, and size required (see 1.2.1 and 1.2.2).
(c) Whether fungicidal treatment required and type required (see 3.3).
(d) Whether conveyor required (see 3.4.2).
(e) Motor electrical characteristics required, if other than specified (see 3.6.1).
(f) Level of preservation, packaging, and packing required (see 5.1 and 5.2).

GSA DC 71-8852

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge at Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, D. C., Atlanta, Chicago, Kansas City, Mo., Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, Washington.

(Federal Government activities may obtain copies of Federal Specifications, Standards and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications:

MIL-B-121 - Barrier Material, Greaseproofed, Flexible.
MIL-E-11275 - Engines, Gasoline, Industrial Type, 1/2 Through 100 BHP, General Specifications.
MIL-I-26600 - Interference Control Requirements.
MIL-P-116 - Preservation, Methods.
MIL-P-16298 - Preservation, Packaging, Packing and Marking of Electric Machines Having Rotating Parts and Associated Repair Parts.
MIL-P-10062 - Packaging and Packing of Engines, Spare or Installed.

Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specification procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect at the date of the invitation for bids or request for proposal shall apply.

National Bureau of Standards, Publication:

Handbook 28 - Screw-Thread Standards for Federal Services.

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.)

Kent's Mechanical Engineers', Publication:

Kent's Mechanical Engineers' Handbook - 12th Edition.

(Application for copies should be addressed to John Wiley and Sons, Inc., 440-4th Avenue, New York, New York 10016.)

National Electrical Manufacturers' Association (NEMA), Publication:

NEMA Standards for Motors and Generators.

(Application for copies should be addressed to the National Electrical Manufacturers' Association, 155 E 44th Street, New York, New York 10017.)

GENERAL SERVICES ADMINISTRATION - FEDERAL SUPPLY SERVICE **SPECIFICATION COMMENT SHEET**	BUDGET BUREAU NO. 29-R0175

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FF-P-00810A(GSA-FSS) Pulverizing Machine, Paper, Classified Waste (Security)

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5. GENERAL NATURE OF PROBLEM *(e.g., inspection difficulties, manufacturers unable to meet tolerances, containers collapse under normal warehousing conditions, etc.)*

6. SPECIFIC REQUIREMENTS AFFECTED *(Include paragraph number and lines of wording)*

7. SPECIFIC PROBLEMS *(e.g. tests in 4.2.2 will not assure that the battery will last required time; temperature ranges in table 2 do not conform to commercially available items.)*

8. RECOMMENDATIONS

9. NAME OF MANUFACTURER, ASSOCIATION, GOVT., AGENCY, ETC.	10. ADDRESS *(Number, Street, City, State and Zip Code)*

11. NAME AND TITLE OF SUBMITTER	12. DATE

FORM
GSA FEB 69 2200

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4.5.1 Service test. The completely assembled machine shall be connected to an appropriate power source and subjected to three hours of continuous operation. During this period, typical paper filing material shall be fed into the machine. At the start of the second hour, the overall performance of the machine shall be measured. During the final two hours of operations there shall be no dust leakage, no excessive clogging of the screen, no excessive vibration, noise, or servicing. The amount of paper pulverized shall be not less than the rated capacity of the machine (see 1.2.2). The processed paper (pulverized residue) shall be measured with an appropriate test screen or other particle measuring instrument for compliance with requirements for class I or class II pulverizing machines (see 3.2).

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5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A, B, or C as specified (see 6.1).

5.1.1 Level A.

5.1.1.1 Disassembly. When considered necessary, disassembly of the machine shall be the minimum to safeguard parts that increase cubage.

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5.1.1.5 Electric motor. The electric motor shall be preserved in accordance with MIL-P-16298, when applicable.

5.1.1.6 Gasoline engines. The gasoline engines shall be preserved in accordance with MIL-P-10062, when applicable.

5.1.1.7 Technical publications. The technical publications shall be preserved in accordance with Method IC-1 of MIL-P-116.

5. General Nature of Problem:

a. Why does this 1965 Federal Specification for dry pulverizers force these machines to produce powder or dust? By comparison the current NSA approved Class I crosscut security shredder, used to destroy TOP SECRET documents, is allowed to produce relatively giant size particles (3/64" X 33/64" = approximately 0.0242 sq. in. area). This size disparity, "overkill", is an inconsistancy of standards creating considerable Federal monetary waste.

b. Dry pulverizing destruction, subject of this Federal Specification, involves two distinctively different pulverizing destruction techniques:

(1) Choppers - cutting mills which achieve particle reduction using rotating scissor/shearing action blades.

(2) Hammer Mills which employ flails or hammers that beat, tear and abrade.

Both techniques, process paper documents until the resulting particles are reduced in size so that they can exit via a security screen. The diameter of the security screen's perforations determines whether powder or larger particles exit the machine. Due to the difference in destruction techniques, choppers produce clean particles having three or more straight cut edges with no appreciable obliteration of print on either surface. Because chopper type machines achieve security similar to crosscut shredders, i.e., simply by cutting the document into small pieces, security screens for this type equipment should be sized to allow particles to exit which are nominally the same size as the approved NSA standard for crosscut shredder particles (0.0242 sq. in.). Failure to recognize this similarity has created the problem. On the other hand, a different security screen sizing criteria is needed for the hammer mill type pulverizer. Hammer mills create dust by beating and abrading the surface ink from the paper incidental to its hammers reducing documents into fluffy fiber residue. If the holes in the hammer mill's security screen are large enough - particles with tattered edges, showing cleansed surfaces devoid of ink will emerge along with some dust; otherwise only dust or powder emerge, which is now the case. Testing with normal office type documents has proven that the violence of the hammer mill process achieves a secure level of destruction via erasure of surface inks prior to the particles being reduced in size to that of NSA approved crosscut shredder particulate. Consequently, hammer mill security screen criteria should allow for discharge which is erased of information, regardless of particle size, since it is the information we are protecting not the paper backing.

Recognizing this, current US Army standards for classified document destruction have taken the above factors into consideration and now allow 3/16 inch diameter screens on choppers, and 1/4 inch diameter screens on hammer mills. One problem experienced has been that users must now purchase the Army approved screens as an extra item of equipment on special order because this Federal Specification requires the equipment be delivered with the stipulated overkill screens installed.

6. Specific Requirement Affected:

a. Paragraph 1.2.1 - Entire paragraph

b. Paragraph 3.2.0 - First paragraph covering Class I & II requirements

c. Paragraph 3.4.1 - Screen entire paragraph

7. Specific Problems:

Inappropriate security screens are specified for use with these machines. No regard for their unique particulate waste characteristics is evidenced in the specification. This has forced them to generate paper waste overkill at great expense to the government..

a. This 1965 specification fails to recognize that it covers two distinctively different types of pulverizing processes:

(1) Choppers - scissor/shearing action particulate size reduction process - employing cutting edges.

(2) Hammer Mills - particulate size reduction via bursting/tearing, abrading action - employing hammers and flails.

b. Failure of the specification to recognize and understand the impact of para 7.a. above, forces users to buy machines that are muzzled by security screens of the wrong size, which:

(1) Overkills paper waste by converting it to dust with little to no scrap value.

(2) Generates smaller particulate waste than that required for crosscut paper shredders destroying TOP SECRET documents.

(3) Have reduced pulverizer output capacity in order to achieve this overkill.

(4) Have cost more to operate in salaries and energy consumption due to extra time needed to achieve this overkill.

(5) Have experienced premature wear out and accelerated demand for maintenance due to the extra work done to achieve this overkill.

8. Recommendations:

Change specification as follows:

(1) Add new paragraph 1.2.1: Classes. These pulverizing machines shall be of the following classes (note para 6.1):

(a) Class I - Produces size reduction by cutting action employing sharp cutting edges. Particles exhibit straight cut edges (three or more) with little to no surface abrasion or dust.

(b) Class II - Produces size reduction by flailing or hammering action. Particles exhibit severe surface abrasion causing removal of ink and are irregular in shape with frayed, ragged edges. Fine dust is created along with particles. Percentage of dust increases as the security screen hole size decreases in diameter.

(2) Paragraph 1.2.2. Types and sizes. No change

(3) Paragraph 1.2.3. Security screens. All pulverizers will discharge their residue via a security screen, sized such that:

(a) Class I pulverizers will be equiped with a security screen sized such that the nominal area of the discharged particulate will approximate an area of 0.0242 sq. in. with no more than 1 percent measuring more than 1/4 in. (A 3/16 in. diameter security screen will normally meet this standard, however manufacturers must certify their screens to this standard using substance 20 Xerographic paper via independant testing laboratory report accompanying the screen.)

(b) Class II pulverizers will be equipped with a security screen sized such that no more than 5 percent of its discharge will contain readable information. (A 1/4 in. diameter security screen will normally meet this standard using one ream substance 20 Xerographic paper 8 1/2 in. X 11 in. printed both sides, to the print density of pages 3 and 4 of this specification. Manufacturer will provide certification of screen test conducted by independent testing laboratory with each machine.)

FF-P-00810A(GSA-FSS)
March 1, 1971
SUPERSEDING
Int. Fed. Spec. FF-P-00810(GSA-FSS)
June 15, 1965

INTERIM FEDERAL SPECIFICATION

PULVERIZING MACHINE, PAPER, CLASSIFIED WASTE (SECURITY)

This Interim Federal Specification was developed by Standardization Division, Federal Supply Service, General Services Administration, Washington, D. C. 20406, based upon currently available technical information. It is recommended that Federal agencies use this document in procurement and forward any recommendations for changes to the preparing activity at the address shown above.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers paper pulverizing machines which are designed to meet the document destruction criteria for classified information set forth in Executive Order 10501, as amended "Safeguarding Official Information in the Interest of the Defense of the United States." The machines are intended for use as specified by the user activity.

1.2 Classification.

1.2.1 Classes. The pulverizing machines shall be of the following classes, as specified (see 6.1).

Class I - 5mm residue measurement (in any dimension).
Class II - 3/32-inch residue (screen measurement).

1.2.2 Types and sizes. The pulverizing machines shall be of the following types and sizes, as specified (see 6.1).

Type A - Electric motor.
Type B - Gasoline engine.

Size 1 - 50 lb/hr, continuous operation.
Size 2 - 100 lb/hr, continuous operation.
Size 3 - 200 lb/hr, continuous operation.
Size 4 - 400 lb/hr, continuous operation.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issues in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

CC-M-641 - Motors; Alternating Current, Integral Horsepower.
TT-C-490 - Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.
PPP-B-601 - Boxes, Wood, Cleater-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner.
PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple Wall.
PPP-C-650 - Crates, Open and Covered.
PPP-T-76 - Tape, Pressure-sensitive Adhesive Paper, Water Resistant (for carton sealing).

Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

3. REQUIREMENTS

3.1 Preproduction sample. Before production is commenced, a sample of the finished commodity shall be submitted or made ready for approval of the contracting officer or his authorized representative for inspection and tests to determine compliance with this specification. The contractor shall notify the designated Regional Quality Control Division set forth in the notice of award of the availability of the sample. The approval of the preproduction sample authorizes the commencement of production, but does not relieve the contractor of responsibility for compliance with all applicable requirements of this specification. Production units shall not vary from the approved preproduction sample in design or construction without written approval of the contracting officer.

3.2 Pulverizing machines.

Class I - The processed material (residue) from class I machines shall consist of 85 percent fibrous bulk with no single piece of paper larger than 5mm in any dimension.

Class II - The processed material (residue) from the class II machines shall be of a fineness to pass through a 3/32-inch (mesh) test screen.

3.2.1 Materials and components. All materials and components for the pulverizing machines shall be new and the pulverizing machines shall be the manufacturer's latest design current at the time of delivery, except for such modifications as may be necessary to conform with the requirements of this specification. The machines shall be complete with all accessories for satisfactory operation. The design shall be such that fire, electrical, and explosion hazards are minimized.

3.3 Protective coating. The use of any protective coating that will crack, chip, or scale with age or extremes of climate and environmental conditions shall be avoided. Materials that are not nutrients for fungi shall be used to the extent practicable. Where such material that are nutrients for fungi must be used, such material, when specified (see 6.1), shall be treated with a fungicidal agent acceptable to the procuring activity.

3.4 Construction. The machine's frame shall be made of steel or cast iron or a combination of both and it shall be of sufficient strength to withstand vibrations experienced during the operation of the machine and to support the operating component parts. When hammers or blades are used to accomplish the pulverizing actions, they shall be of a specially heat-treated and hardened steel or other suitable hard alloy. The pulverizer unit encasement shall be of heavy steel plate, or heavy cast iron, or a combination of both. Encasement joints and shaft openings shall be sufficiently tight to prevent leakage of particles or dust.

3.4.1 Screen. A screen shall surround at least 1/2 the circumference of the pulverizer unit. The openings (mesh) in the screen shall be of a size to meet the applicable requirements in 3.2. The screen for the class I machine shall be permanently marked with the symbol "class I". The class II machine shall be permanently marked with the symbol "class II". All symbols shall be not less than 1/2-inch in height and shall be located on the screen so as to be readily visible to the operator for identification purposes.

3.4.2 Feed tray. The machine shall have a feed tray of a design that makes it impossible for the operator to reach into the pulverizer unit while the unit is operating. The tray shall be not less than 20 inches long and 10 inches wide. A conveyor arrangement shall be provided when specified (see 6.1).

3.4.3 Blower or vacuum pump. Either a blower or a vacuum pump may be used to discharge the processed material. When a blower is used its encasement shall be of heavy steel plate and encasement joints shall be sufficiently tight to prevent escape of dust and lint. If necessary, the joints shall be sealed to obtain this condition. The fan for the blower shall have either ferrous or non-ferrous blades attached to a rotating shaft. The blades shall be balanced on the shaft to eliminate vibration. If a vacuum pump is used the tube or hose connection to the discharge receptical shall be dust tight.

3.4.4 Discharge hopper. The discharge hopper shall be of a type and size capable of handling the processed material at a rate at least equal to the rated hourly capacity of the pulverizing machine. Machines which discharge the processed material by vacuum through a hose into an external waste container shall dispose of the material at not less than the rated hourly capacity of the pulverizing machine.

3.4.5 Dust collector. A dust collector shall be provided with the machine that shall be capable of keeping the dust level in the operation's area below 50 million particles per cubic-foot and below explosion level. The collector shall be of light weight steel and all points, including inlet and discharge piping shall be dust tight.

3.9 Height and weight. The height of the machine, excluding dust collector, shall not exceed the maximum dimensions specified in table I. The weight, with dust collector, shall not exceed 2,500 pounds. The weight of the machine (with dust collector) shall be suitably marked on the exterior surface of the machine so as to be readily visible.

TABLE I. Height, maximum

Size	Height in inches
1	48
2	52
3	72
4	90

3.10 Lubrication. Lubrication fittings shall be provided for all bearings not permanently sealed. Protection shall be provided against leakage of the lubricating agent into the pulverizer unit. The lubricants used shall be suitable to the varied climatic conditions likely to be encountered in areas where the machine is used.

3.11 Pretreatment, color and finish. All exterior ferrous metal surfaces shall be prepared for painting in accordance with any of the types in TT-C-490. The color shall be the manufacturer's standard and the finish coat shall be applied in accordance with good commercial practices.

3.12 Identification label. A metallic identification label shall be securely affixed to an external surface of the machine. The label shall show the machine's model and serial number, class number (I or II), year of manufacture, manufacturer's name or trademark, and Government contract number. Lettering on labels shall be clear and legible and shall resist erasure.

3.13 Parts and interchangeability. Parts subject to replacement because of wear or accidental damage shall be available from the manufacturer. All replaceable parts shall be manufactured to definite standards, tolerances, and clearances so that parts may be replaced or adjusted without modification. To the extent possible, all parts shall be permanently and legibly marked with the manufacturer's part number.

3.14 Workmanship. The pulverizing machine, including all parts and accessories, shall be fabricated and finished in accordance with good workmanship practices and the machine shall be free of any defects or features which might affect its appearance, operation, or serviceability.

3.15 Operation's instruction manual. An instruction manual for use by operating and maintenance personnel shall be provided with each machine supplied by the manufacturer. The manual shall contain all instruction necessary for the assembly, operation, maintenance, and minor repair of the machine. The manual shall contain a section which clearly identifies all parts and components by description and part number.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility. Except as otherwise specified, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facility or service acceptable to the Government. Inspection records of the examinations and tests shall be kept complete and available to the Government as specified in the contract or order. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to the prescribed requirements.

4.1.1 Component and material inspection. In accordance with 4.1, the supplier is responsible for insuring that components and materials used are manufactured, tested, and inspected in accordance with the requirements of referenced subsidary specifications and standards to the extent specified or, if none, in accordance with this specification.

4.2 Preproduction and acceptance tests and inspections. The preproduction sample in each class and size the supplier intends to furnish and each machine offered for acceptance under a contract or order shall be subjected to the tests and inspections in 4.4.1 through 4.4.3. Failure to withstand any of these requirements shall provide reason for rejection.

4.3 Inspection of preparation for delivery requirements. An inspection shall be made to determine that the preservation, packaging, packing and marking comply with the requirements in section 5 of this specification. Defects shall be scored in accordance with table II. For examination of interior packaging the sample unit shall be one shipping container fully prepared for delivery, selected at random just

Add new paragraphs as follows:

4.4 Acceptance inspections and tests.

4.4.1 Sampling for inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.2 Visual and dimensional inspections. Each machine offered under a contract shall be inspected to determine compliance with workmanship, dimension, and weight requirements of this specification. Any deviation shall constitute a defect. The inspection level shall be S-2 with an acceptable quality level (AQL) of 2.5 expressed in terms of defects per hundred units.

4.4.3 Acceptance tests. Each machine offered for acceptance under a contract may be subjected to the tests in 4.5. Failure of the machine to withstand any of the tests shall provide reason to reject the machine and suspend acceptance until the Government inspector is satisfied that all defects in production have been corrected.

Paragraph 4.5.1: Delete text in its entirety and substitute: "The completely assembled machine shall be subjected to 2 hours of continuous operation. During this period, typical paper filing material shall be fed into the machine. During the final hour of operation, the overall performance of the machine shall be determined. The machine shall function as intended by this specification; the amount of paper processed shall be not less than the capacity specified for its size in 1.2.2; the particle size of the processed (pulverized) material shall not exceed the size specified for the machine's class in 3.2; and the dust level in the operator's area shall not exceed the level specified in 3.4.5."

Add new paragraph as follows:

4.5.1.1 Test conditions. The machine shall be connected to an appropriate electrical source in a suitable area with normal ventillation and of a size to permit freedom of movement for personnel attending the machine in the operator's area. The operator's area is from the point where the material to be processed is fed into the machine to the point where the processed material is discharged into a collector bag or bags. The supplier shall furnish suitable bags for the test. The machine may be vented to the outside and the pulverized material may be discharged through pipes or ducts to an adjacent area provided that fittings and connections do not permit the escape of dust or pulverized material; and provided that the dust level at the point where the material is discharged into a bag does not exceed the level specified in 3.4.5.

Paragraph 4.5.2 - Delete text in its entirety and substitute the following:

"Electromagnetic interference test. The machine shall be tested for compliance with class IIB as specified in MIL-STD-461."

Paragraph 4.6: Delete in its entirety without substitution.